

Report No.: SEWM2307000288RG01

Rev.: 01

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# Appendix B.4

## LTE-NB1 Band 12



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## Effective (Isotropic) Radiated Power Output Data

### Test Result

Test Band	Test Mode	Sub-carrier Spacing (kHz)	Test channel	Number of T	Conducted Power (dBm)	ERP (dBm)	limit (dBm)	Verdict
NB1 Band 12	BPSK	3.75	23011	1T0	23.47	23.82	34.77	PASS
NB1 Band 12	BPSK	3.75	23011	1T47	23.33	23.68	34.77	PASS
NB1 Band 12	BPSK	3.75	23095	1T0	23.39	23.74	34.77	PASS
NB1 Band 12	BPSK	3.75	23095	1T47	23.42	23.77	34.77	PASS
NB1 Band 12	BPSK	3.75	23179	1T0	23.38	23.73	34.77	PASS
NB1 Band 12	BPSK	3.75	23179	1T47	23.43	23.78	34.77	PASS
NB1 Band 12	QPSK	3.75	23011	1T0	23.36	23.71	34.77	PASS
NB1 Band 12	QPSK	3.75	23011	1T47	23.37	23.72	34.77	PASS
NB1 Band 12	QPSK	3.75	23095	1T0	23.36	23.71	34.77	PASS
NB1 Band 12	QPSK	3.75	23095	1T47	23.29	23.64	34.77	PASS
NB1 Band 12	QPSK	3.75	23179	1T0	23.35	23.7	34.77	PASS
NB1 Band 12	QPSK	3.75	23179	1T47	23.42	23.77	34.77	PASS



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Test Band	Test Mode	Sub-carrier Spacing (kHz)	Test channel	Number of T	Conducted Power (dBm)	ERP (dBm)	limit (dBm)	Verdict
NB1 Band 12	BPSK	15	23011	1T0	23.42	23.77	34.77	PASS
NB1 Band 12	BPSK	15	23011	1T11	23.51	23.86	34.77	PASS
NB1 Band 12	BPSK	15	23095	1T0	23.49	23.84	34.77	PASS
NB1 Band 12	BPSK	15	23095	1T11	23.42	23.77	34.77	PASS
NB1 Band 12	BPSK	15	23179	1T0	23.47	23.82	34.77	PASS
NB1 Band 12	BPSK	15	23179	1T11	23.21	23.56	34.77	PASS
NB1 Band 12	QPSK	15	23011	1T0	23.51	23.86	34.77	PASS
NB1 Band 12	QPSK	15	23011	1T11	23.32	23.67	34.77	PASS
NB1 Band 12	QPSK	15	23011	12T0	21.46	21.81	34.77	PASS
NB1 Band 12	QPSK	15	23095	1T0	23.44	23.79	34.77	PASS
NB1 Band 12	QPSK	15	23095	1T11	23.36	23.71	34.77	PASS
NB1 Band 12	QPSK	15	23095	12T0	21.51	21.86	34.77	PASS
NB1 Band 12	QPSK	15	23179	1T0	23.55	23.9	34.77	PASS
NB1 Band 12	QPSK	15	23179	1T11	23.33	23.68	34.77	PASS
NB1 Band 12	QPSK	15	23179	12T0	21.52	21.87	34.77	PASS



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## Field Strength of Spurious Radiation

Test Band = NB-IOT Band 12\_ TM1

Test Channel = Low Channel

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1403.1111	72.72	-48.72	25.09	-46.17	-13.00	33.17	265	13	Horizontal
2	2104.4444	75.70	-47.87	26.53	-40.90	-13.00	27.90	254	105	Horizontal
3	2805.7778	58.52	-46.69	28.68	-54.74	-13.00	41.74	362	120	Horizontal
4	3497.95	42.08	-46.05	29.60	-69.63	-13.00	56.63	225	360	Horizontal
5	4197.54	42.64	-45.12	31.62	-66.12	-13.00	53.12	142	303	Horizontal
6	4897.13	41.35	-45.14	32.97	-66.07	-13.00	53.07	268	360	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1403.1111	66.75	-48.72	25.09	-52.14	-13.00	39.14	102	210	Vertical
2	2104.4444	67.10	-47.87	26.53	-49.50	-13.00	36.50	265	118	Vertical
3	2798.36	43.26	-46.69	28.65	-70.03	-13.00	57.03	281	104	Vertical
4	3497.95	42.15	-46.05	29.60	-69.56	-13.00	56.56	142	241	Vertical
5	4197.54	41.01	-45.12	31.62	-67.75	-13.00	54.75	263	357	Vertical
6	4897.13	41.41	-45.14	32.97	-66.01	-13.00	53.01	228	14	Vertical



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**Test Band = NB-IOT Band 12\_ TM1**

**Test Channel = Mid Channel**

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1414.6667	71.97	-48.69	25.06	-46.92	-13.00	33.92	206	15	Horizontal
2	2122.6667	78.25	-47.85	26.57	-38.29	-13.00	25.29	285	77	Horizontal
3	2829.7778	55.64	-46.72	28.79	-57.55	-13.00	44.55	254	123	Horizontal
4	3515.45	41.81	-46.03	29.65	-69.83	-13.00	56.83	142	225	Horizontal
5	4218.54	41.48	-45.11	31.65	-67.24	-13.00	54.24	263	241	Horizontal
6	4921.63	40.37	-45.12	33.03	-66.98	-13.00	53.98	228	360	Horizontal

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1415.1111	67.18	-48.69	25.06	-51.71	-13.00	38.71	202	345	Vertical
2	2122.2222	67.14	-47.85	26.57	-49.40	-13.00	36.40	265	148	Vertical
3	2829.7778	48.00	-46.72	28.79	-65.19	-13.00	52.19	142	117	Vertical
4	3515.45	42.12	-46.03	29.65	-69.52	-13.00	56.52	263	315	Vertical
5	4218.54	41.48	-45.11	31.65	-67.24	-13.00	54.24	228	315	Vertical
6	4921.63	41.36	-45.12	33.03	-65.99	-13.00	52.99	226	162	Vertical



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**Test Band = NB-IOT Band 12\_ TM1**

**Test Channel = High Channel**

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1427.1111	74.35	-48.66	25.03	-44.54	-13.00	31.54	201	15	Horizontal
2	2140	77.21	-47.82	26.61	-39.27	-13.00	26.27	185	289	Horizontal
3	2853.7778	50.80	-46.74	28.89	-62.32	-13.00	49.32	263	304	Horizontal
4	4538.2222	43.14	-44.75	32.18	-64.68	-13.00	51.68	254	152	Horizontal
5	6124.4444	42.50	-42.92	35.05	-60.63	-13.00	47.63	142	59	Horizontal
6	7596.8889	40.40	-41.36	36.70	-59.52	-13.00	46.52	296	75	Horizontal

**Test Band = NB-IOT Band 12\_ TM1**

**Test Channel = High Channel**

Final Data List										
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1427.1111	67.91	-48.66	25.03	-50.98	-13.00	37.98	102	346	Vertical
2	2140.4444	64.31	-47.82	26.61	-52.16	-13.00	39.16	265	194	Vertical
3	2853.7778	48.87	-46.74	28.89	-64.25	-13.00	51.25	284	120	Vertical
4	4328.4444	42.94	-45.01	31.83	-65.50	-13.00	52.50	142	5	Vertical
5	5233.7778	42.66	-44.02	33.15	-63.46	-13.00	50.46	263	104	Vertical
6	6420.8889	43.93	-42.82	35.64	-58.51	-13.00	45.51	228	315	Vertical

**Remark:**

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

---End of Attachment---



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